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Agricultural Memorandum No 627

Accumulated Degree Days above 10 Deg C in SW England - J D Morgan

Due to the increasing interest in maize, the following data, for the 15 year period 1959 to 1973, were extracted to give a coverage of the area likely to be suitable for forage maize in SW England. The accumulated temperatures were derived from monthly mean temperatures for the months May to October inclusive.

The data were processed to obtain (a) Mean values, (b) Standard deviations and (c) the values exceeded 9 years in 10 for the following 5 stations: Filton, Boscombe Down, Cannington, Weymouth and Starcross.

The results are given in Table I below.

In Table II accumulated temperatures are shown for each year, as totals from 1 May. The rankings given in the final column refer to the May-October totals.

TABLE I

Value of Standard deviation, value exceeded 9 years in 10 and mean value of accumulated degree days over 10 deg C.

		Filton	Boscombe Down	Cannington	Weymouth	Starcross
a	Mean	786	748	795	886	763
b	Standard Deviation	93	111	105	115	93
c	Value exceeded 9 years in 10	665	604	658	707	643

TABLE II

(In the following table, values shown in brackets include an estimated total for that month.)

Accumulated degree days above 10 Deg C at Filton

Year	May	June	July	Aug	Sept	Oct	Rank
1973	77	236	431	663	810	838	11
1972	59	143	332	521	605	658	2
1971	81	177	416	608	761	842	12
1970	112	304	487	676	820	867	14
1969	47	188	415	623	746	848	13
1968	43	205	382	571	706	796	8
1967	47	191	422	605	734	784	7
1966	68	239	417	588	714	757	5
1965	74	215	361	538	622	681	3
1964	99	234	439	628	775	803	9
1963	56	209	377	526	625	684	4
1962	43	172	352	507	603	643	1
1961	68	215	404	596	761	817	10
1960	105	300	479	642	744	781	6
1959	105	267	493	726	891	996	15

Accumulated degree days above 10 Deg C at Boscombe Down

Year	May	June	July	Aug	Sept	Oct	Rank
1973	65	212	392	621	771	793	11
1972	59	122	299	466	583	640	4
1971	81	198	431	617	764	841	12
1970	105	300	477	666	807	869	14
1969	68	200	420	622	751	844	13
1968	47	194	355	526	649	730	8
1967	50	179	391	568	679	722	7
1966	62	221	379	537	666	706	5
1965	71	200	333	494	566	625	3
1964	105	228	436	622	769	791	10
1963	53	188	341	474	570	613	2
1962	37	160	311	451	535	585	1
1961	59	194	365	542	698	751	9
1960	113	293	447	591	684	715	6
1959	102	258	494	730	907	994	15

Accumulated degree days above 10 Deg C at Cannington

Year	May	June	July	Aug	Sept	Oct	Rank
1973	70	217	400	645	792	823	11
1972	35	100	283	463	552	597	1
1971	79	172	386	557	680	741	4
1970	77	260	437	608	758	808	9
1969	59	188	402	600	729	828	12
1968	56	(206)	379	568	703	805	8
1967	56	203	(415)	598	727	795	7
1966	68	233	416	587	728	781	6
1965	71	203	361	538	(622)	681	2
1964	99	234	457	665	836	873	14
1963	59	230	401	565	682	753	5
1962	47	176	359	523	625	693	3
1961	78	231	423	624	798	851	13
1960	102	297	482	658	775	818	10
1959	109	283	525	767	950	1065	15

Accumulated degree days above 10 Deg C at Weymouth

Year	May	June	July	Aug	Sept	Oct	Rank
1973	63	216	405	638	797	847	8
1972	45	111	285	465	568	640	1
1971	69	165	385	580	739	842	7
1970	85	256	414	597	749	814	5
1969	56	(212)	420	618	774	901	12
1968	53	209	400	606	762	(883)	10
1967	59	194	406	607	760	831	6
1966	77	248	465	660	819	881	9
1965	71	200	340	529	(622)	715	2
1964	109	262	494	711	897	947	14
1963	59	215	395	575	710	787	4
1962	53	188	374	557	686	763	3
1961	87	237	444	653	845	941	13
1960	105	297	495	690	834	899	11
1959	112	289	540	794	1007	1143	15

Accumulated degree days above 10 Deg C at Starcross

Year	May	June	July	Aug	Sept	Oct	Rank
1973	54	180	335	540	684	743	5
1972	45	105	279	443	538	575	1
1971	77	176	396	597	756	837	13
1970	90	270	456	645	789	854	14
1969	53	179	368	564	699	804	10
1968	50	194	367	559	697	812	11
1967	(50)	179	368	551	680	748	6
1966	68	227	410	587	740	796	8
1965	56	176	322	496	571	652	3
1964	90	219	418	595	751	801	9
1963	(59)	(211)	(369)	533	656	724	4
1962	37	142	297	455	551	610	2
1961	87	219	402	598	760	822	12
1960	84	255	434	600	711	761	7
1959	87	231	439	653	821	914	15

Any comments or suggestions on this paper should be referred to the author.

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